

# New Jersey Injury Outlook

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# Injury Outlook



- The big picture
- Priorities for prevention
- Surveillance activities



# Injury Pyramid

- For every injury death there are roughly:
  - 34 hospitalizations
  - 1000 ED visits
  - even more visits to private physicians and school nurses
  - even more injuries treated at home
- Mortality used as a proxy



# The big picture...

- For adults -

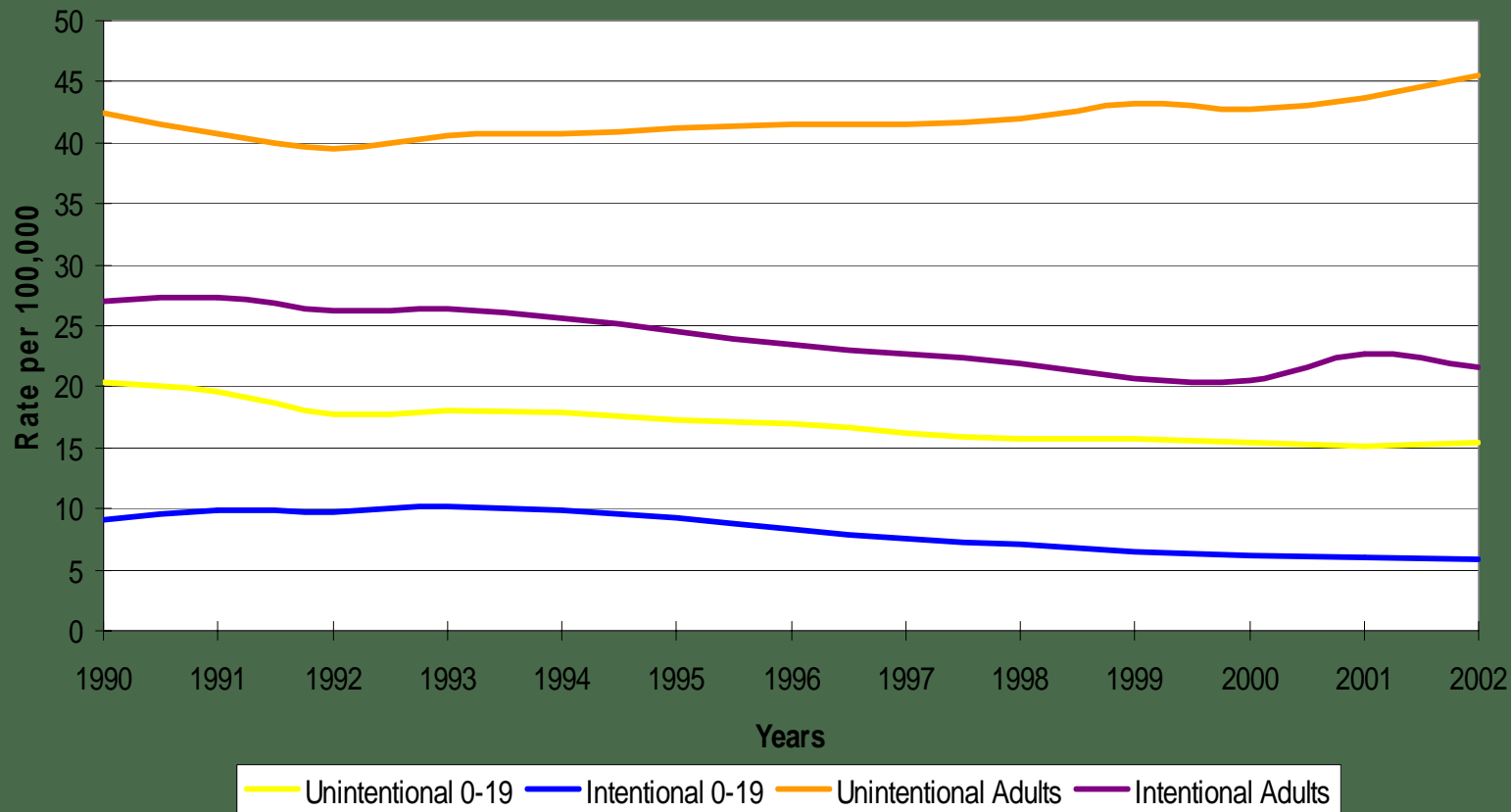
Since 1990, intentional injury mortality has declined,

while unintentional injury mortality has increased

- For kids –

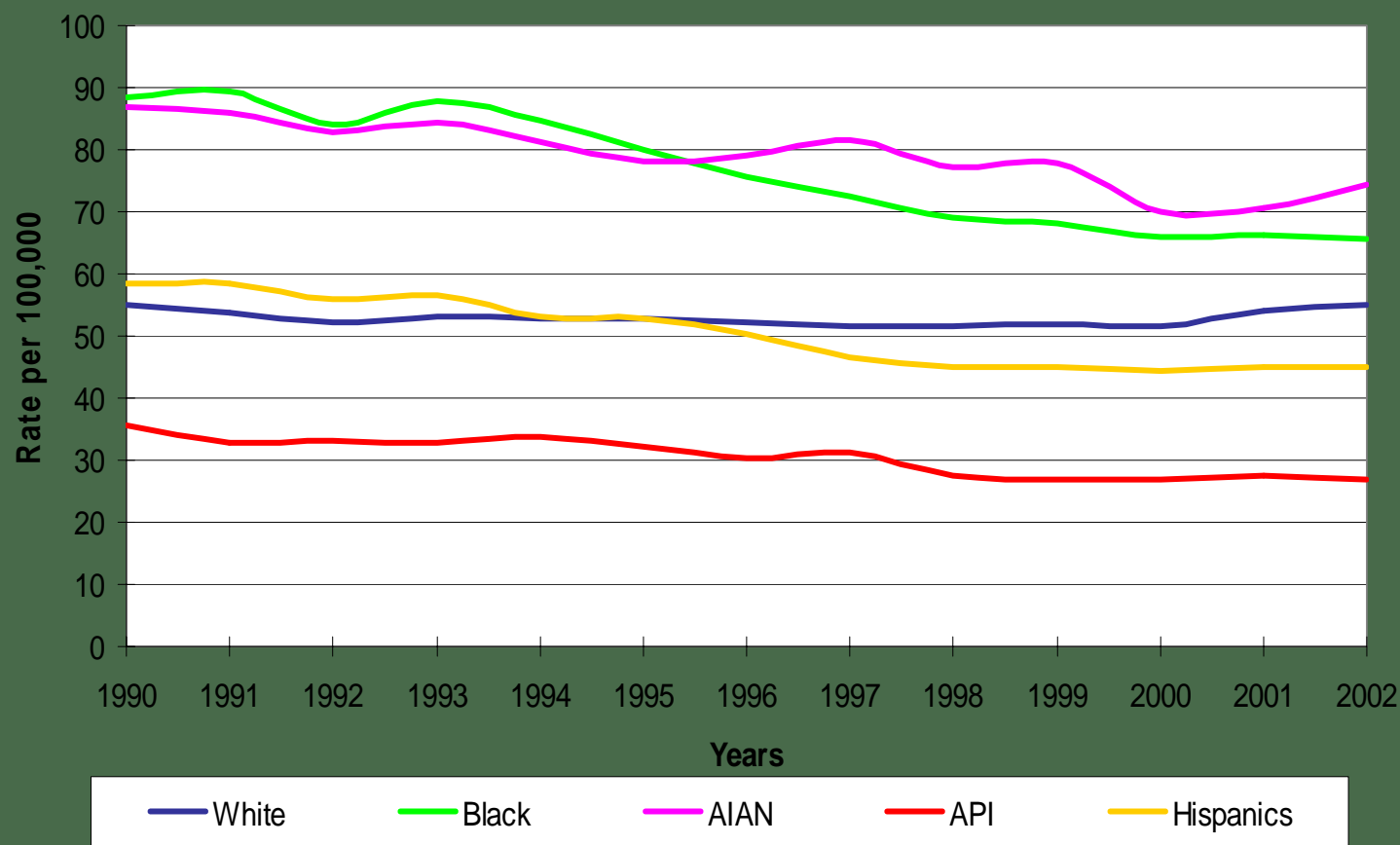
Both intentional and unintentional injury have declined

# Age-adjusted injury mortality rates by intent, children and adults, United States, 1990-2002



1990-2002 data from CDC WISQARS

# Age-adjusted injury mortality rates by race, United States, 1990-2002



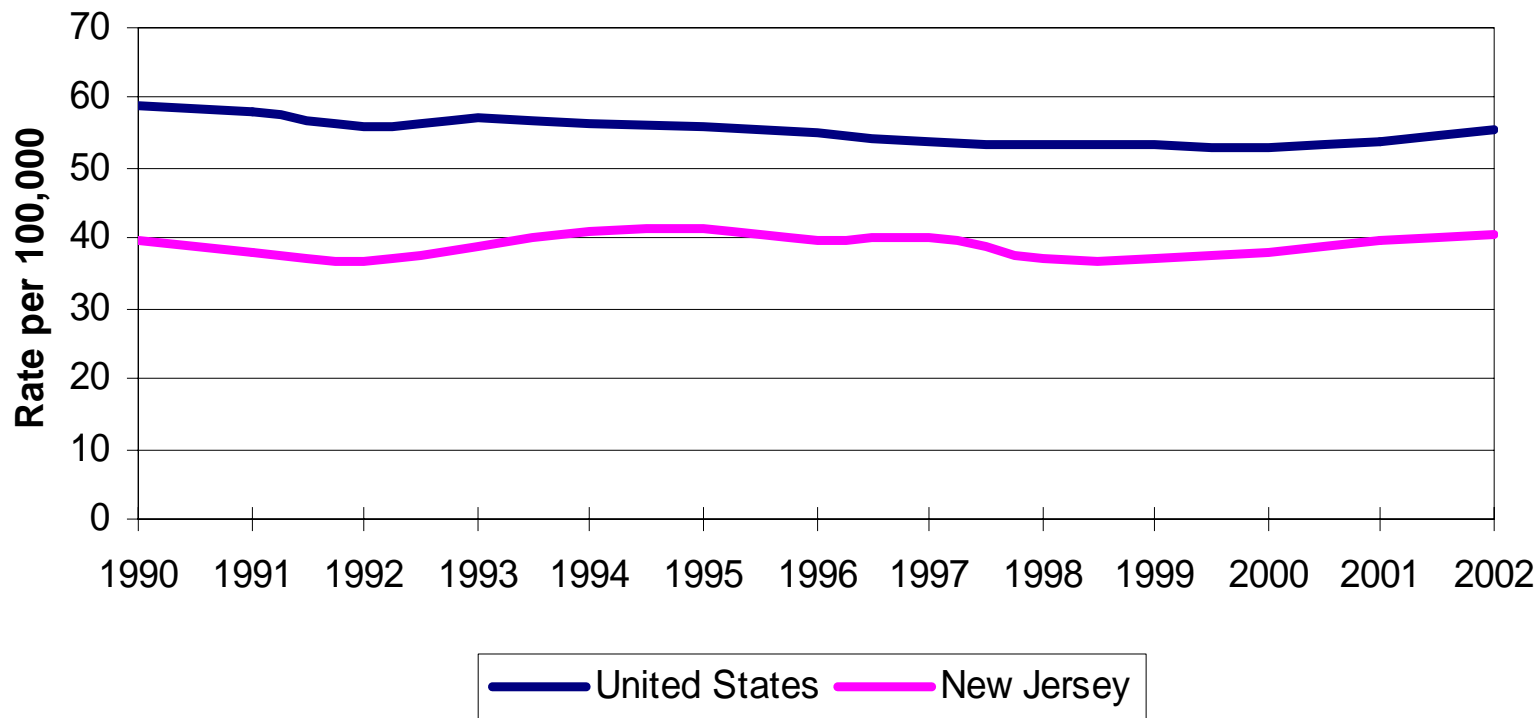
1990-2002 data from CDC WISQARS

# New Jersey versus the U.S.



- Mortality from injury is lower in New Jersey
- But the gap has narrowed over the past decade, as injury has declined nationally

## Age-adjusted injury mortality rates, United States and New Jersey, 1990-2002\*



1990-2002 data from CDC WISQARS; \*2001 data excludes September 11, 2001 deaths





# Injury deaths in New Jersey

- Approximately 70,000 deaths per year in New Jersey
- Approximately 3,500 from injury
- Injury @ 5% of all deaths

# Fatal injuries by intent and age, N.J., 2003



Age	Total	Unintentional	Intentional	Undetermined	Percent Intentional
0-4	50	35	14	1	28.0%
5-14	55	43	12	0	21.8%
15-24	480	280	195	5	40.6%
25-34	531	308	215	8	40.5%
35-44	600	394	185	21	30.8%
45-54	537	358	165	14	30.7%
55-64	295	170	119	6	40.3%
65-74	232	170	56	5	24.1%
75-84	358	315	42	1	11.7%
85+	315	296	16	3	5.1%
<b>Total*</b>	<b>3456</b>	<b>2371</b>	<b>1019</b>	<b>65</b>	<b>29.5%</b>

\*Total includes 3 deaths with age not stated

2003 data from National Center for Health Statistics Multiple Cause of Death file

Center for  
Health Statistics

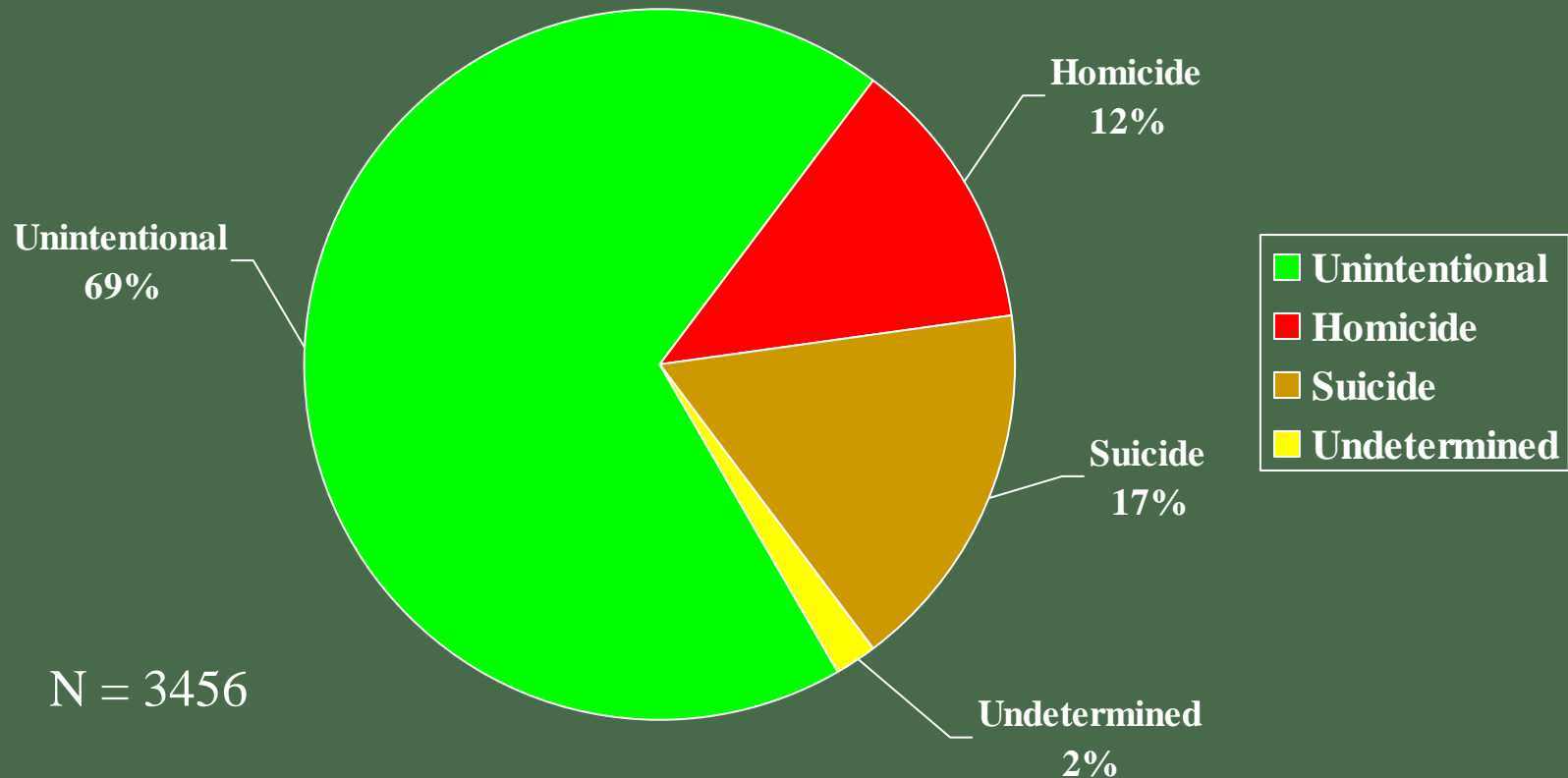


new jersey  
department of health and senior services

dhss



# Distribution of deaths by intent, New Jersey, 2003

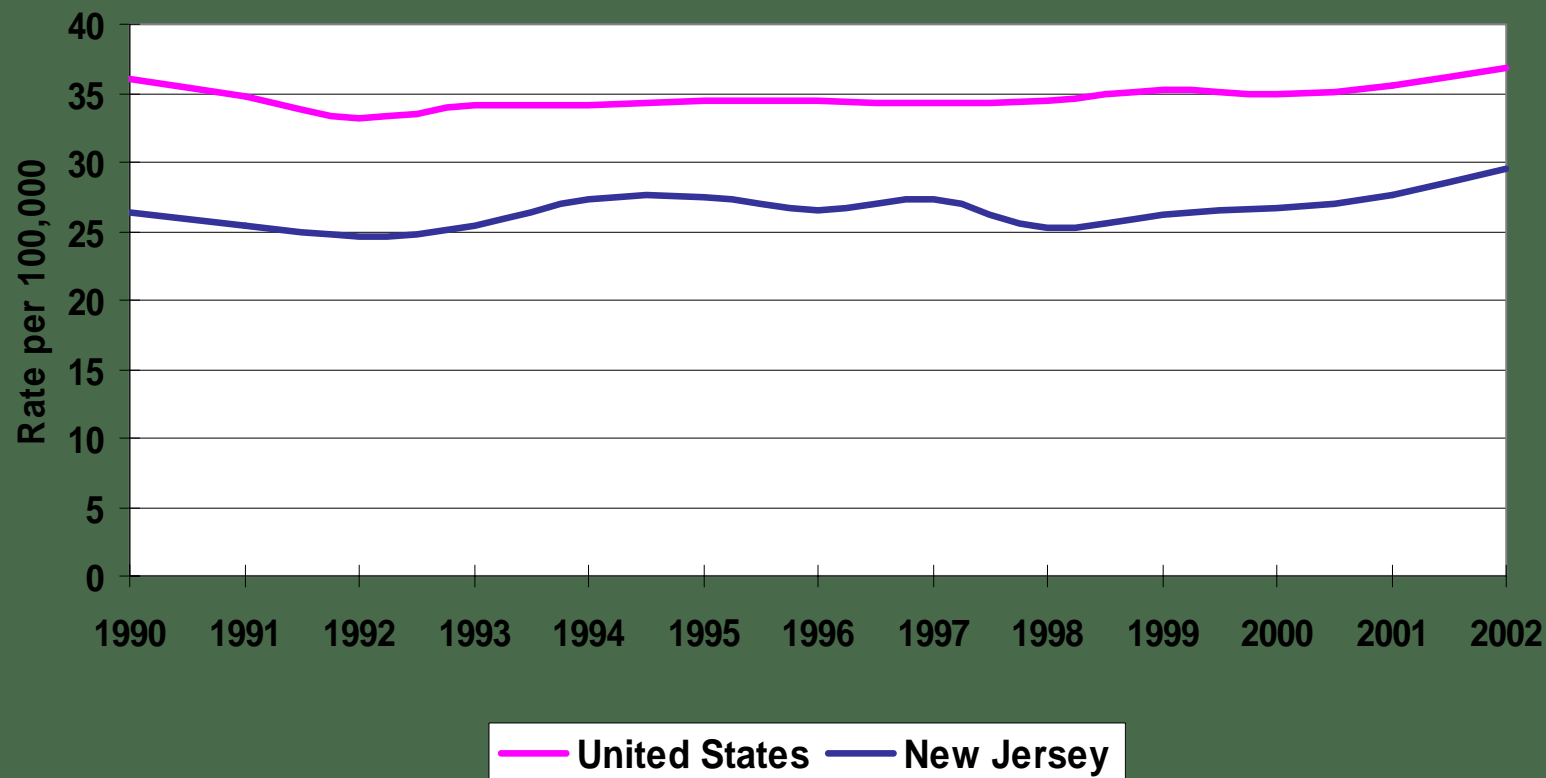


2003 data from National Center for Health Statistics Multiple Cause of Death file

# Unintentional Injury



# Age-adjusted unintentional injury mortality rates, United States and New Jersey, 1990-2002



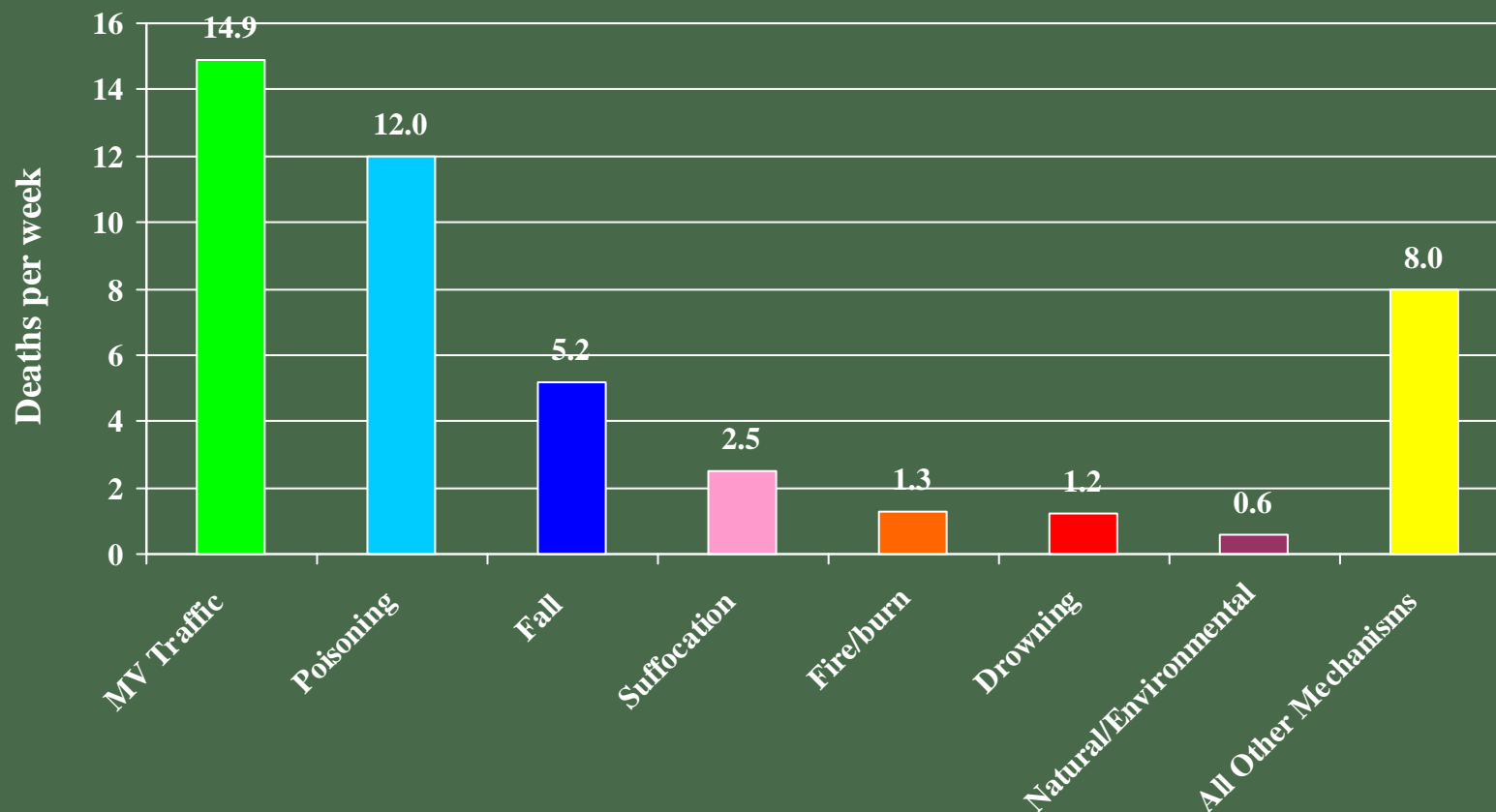
1990-2002 data from CDC WISQARS

# Leading causes of fatal unintentional injuries



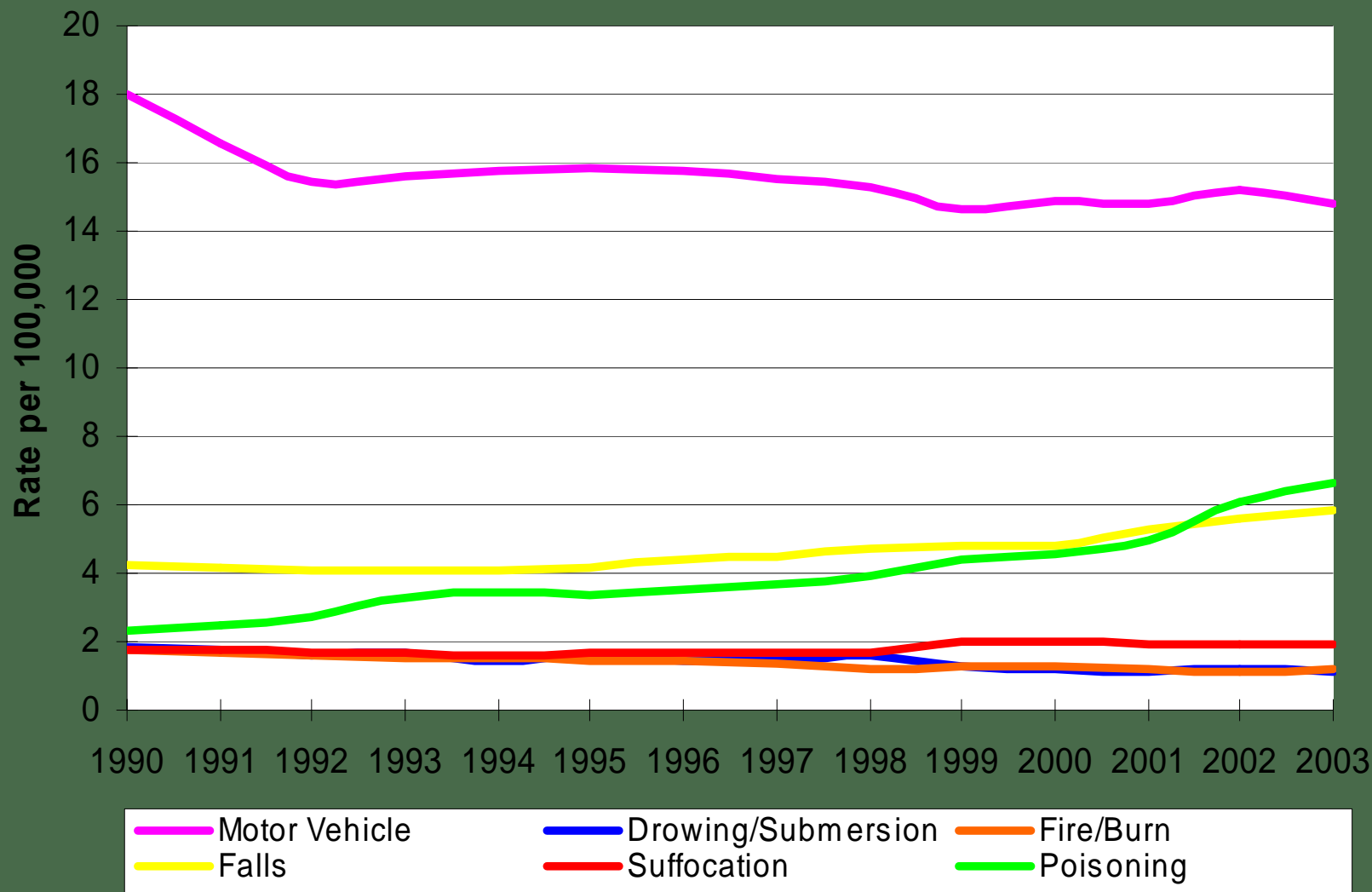
- Motor vehicle
- Poisoning (Drug overdose)
- Falls
- Suffocation
- Fire
- Drowning

# Unintentional injury deaths per week, New Jersey, 2003



2003 data from National Center for Health Statistics Multiple Cause of Death file

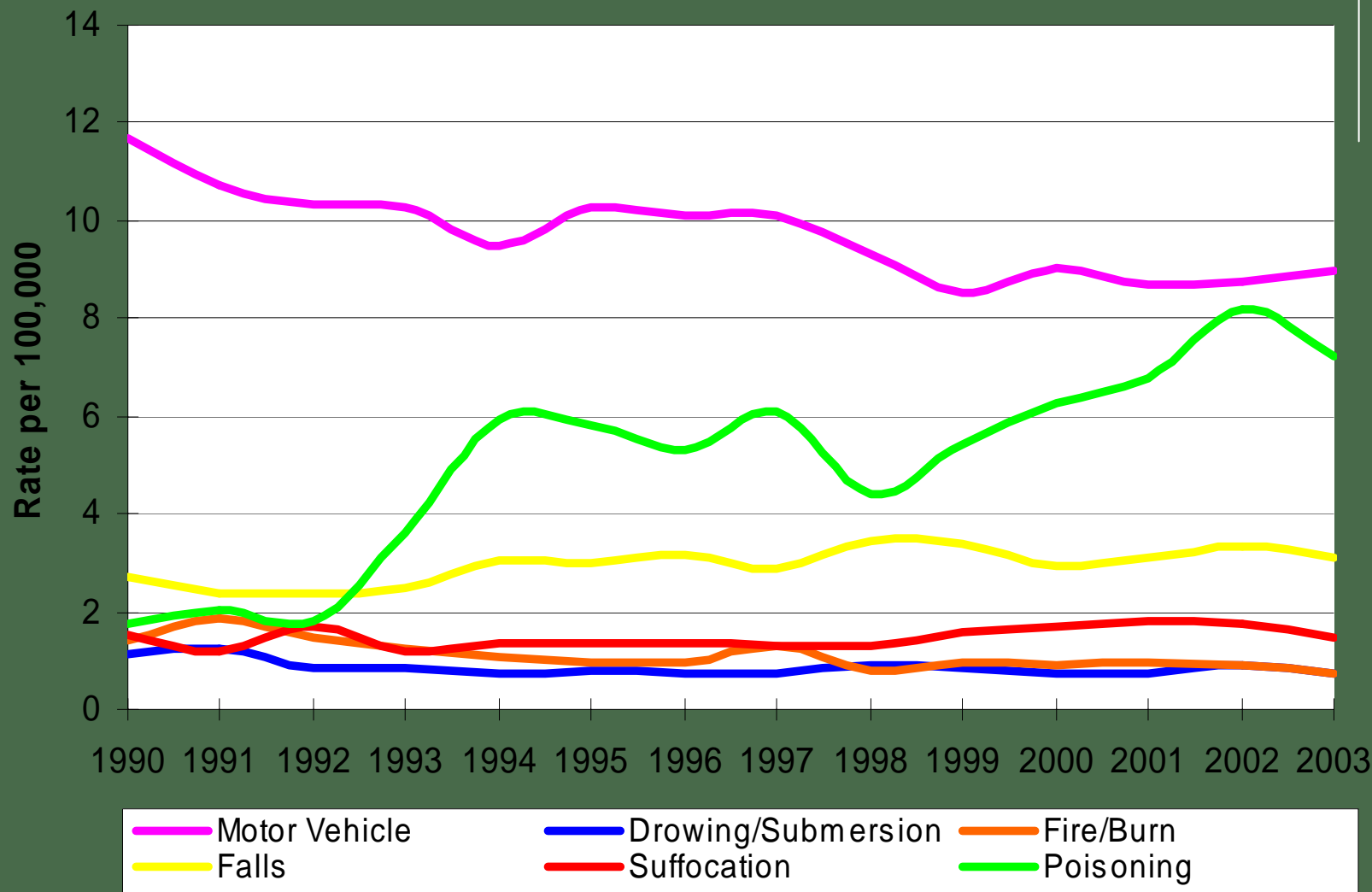
# Age-adjusted unintentional injury mortality rates by leading causes, United States, 1990-2003



1990-2003 data from CDC WISQARS, Accessed March 20, 2006



# Age-adjusted unintentional injury mortality rates by leading causes, New Jersey, 1990-2003



1990-2003 data from CDC WISQARS, Accessed March 20, 2006



# Motor vehicle fatality rates

- New Jersey has relatively low motor vehicle fatality rates
- Tough DUI laws recently enacted
- Dense population; good EMS; high quality trauma treatment; short wait time
- Spatial pattern observed
- Rates higher in rural areas – Southern counties



# Unintentional poisoning

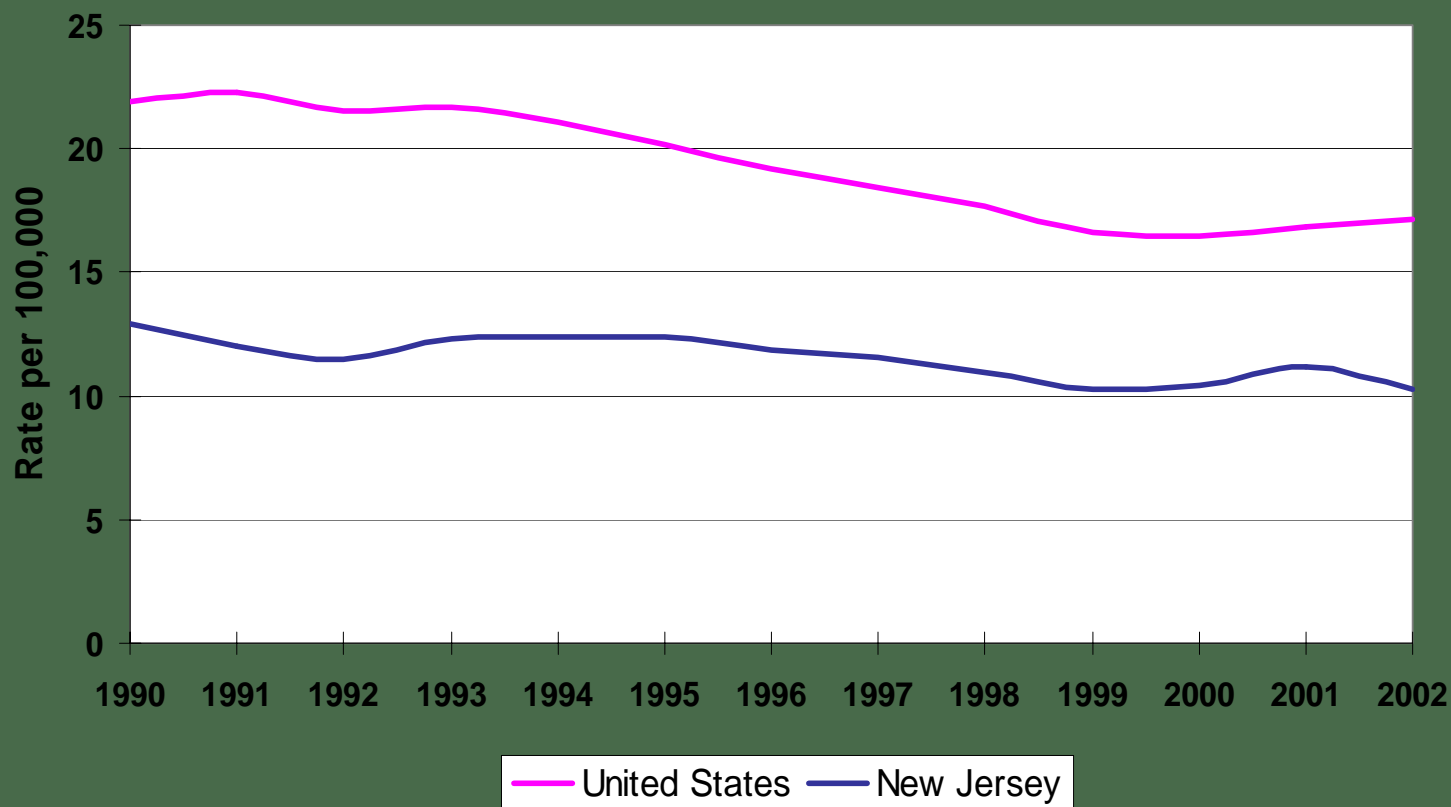
- New Jersey has above average rates of unintentional poisoning
- Rates are increasing – nationally and in NJ
- Most are drug overdoses
- More than half were from “street drugs”
- Most of the rest from prescription drugs

# Intentional injury





## Age-adjusted intentional injury mortality rates, United States and New Jersey, 1990-2002\*



1990-2002 data from CDC WISQARS; \*2001 data excludes September 11, 2001 deaths



# Intentional injury

- Homicide and suicide rates in New Jersey are lower than national rates
- But major source of injury mortality, especially for adolescents
- However suicide rates highest for older males
- Homicide spatially concentrated
- Suicide less so, but prevalence higher in rural counties

# Firearms



- Lower firearm mortality rates in New Jersey than in nation
- Gun control laws strict in New Jersey – gun ownership relatively low
- However, guns are still a major mechanism in homicide and suicide

# Suicide





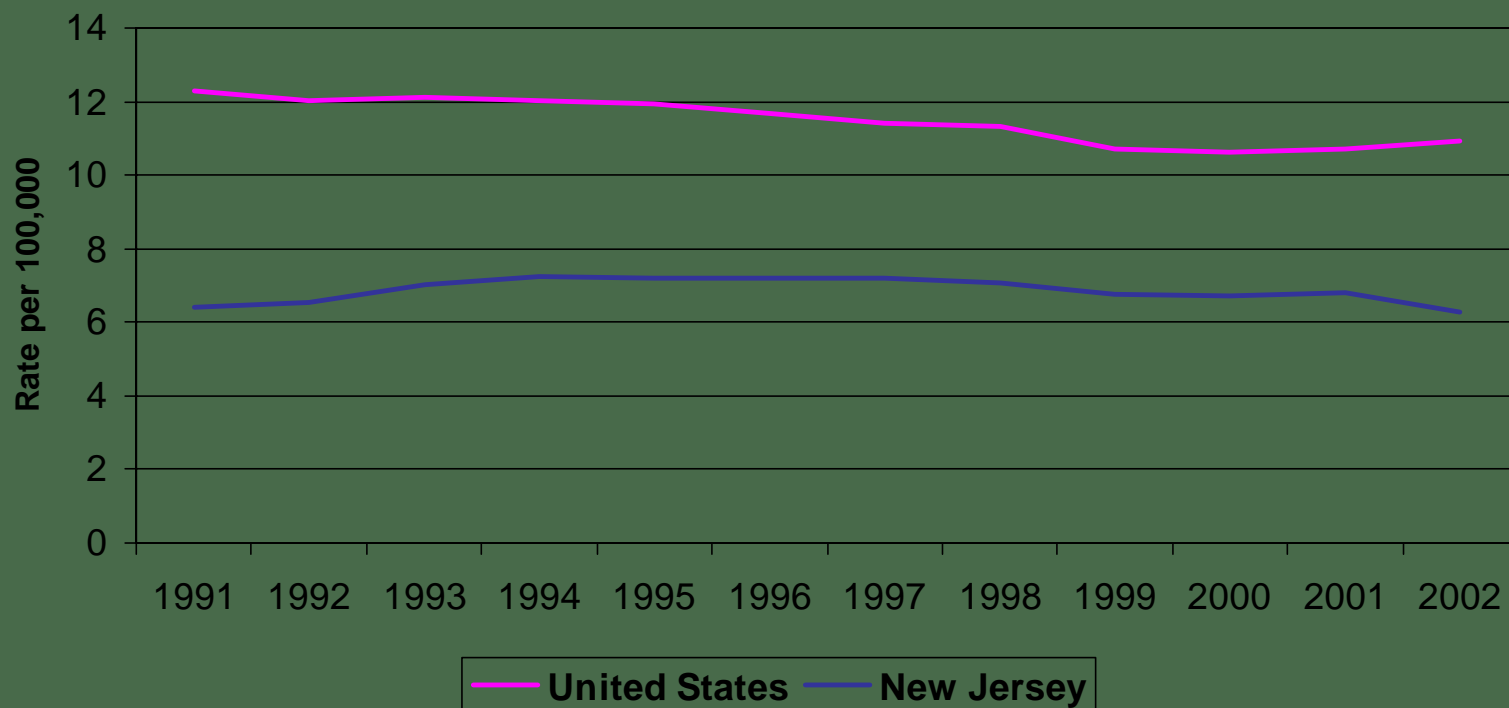


# New Jersey versus the U.S.

- New Jersey has one of the lowest suicide rates in the nation
- Suicide rates are highest in the Western states
- Only the District of Columbia had a lower rate in 2002



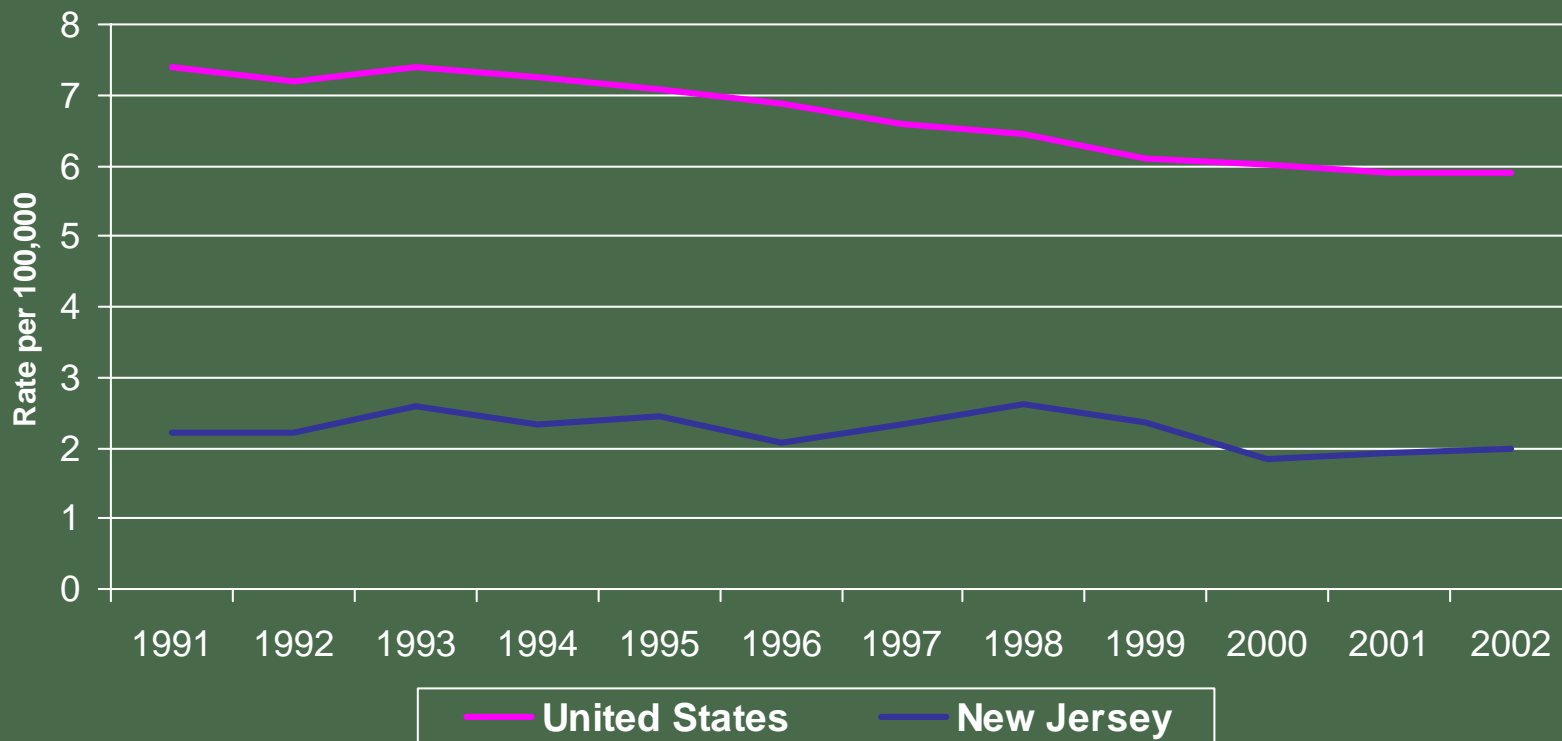
## Age-adjusted suicide rate, United States and New Jersey, 1991-2002



1990-2002 data from CDC WISQARS



## Age-adjusted firearm suicide rate, United States and New Jersey, 1991-2002



1990-2002 data from CDC WISQARS

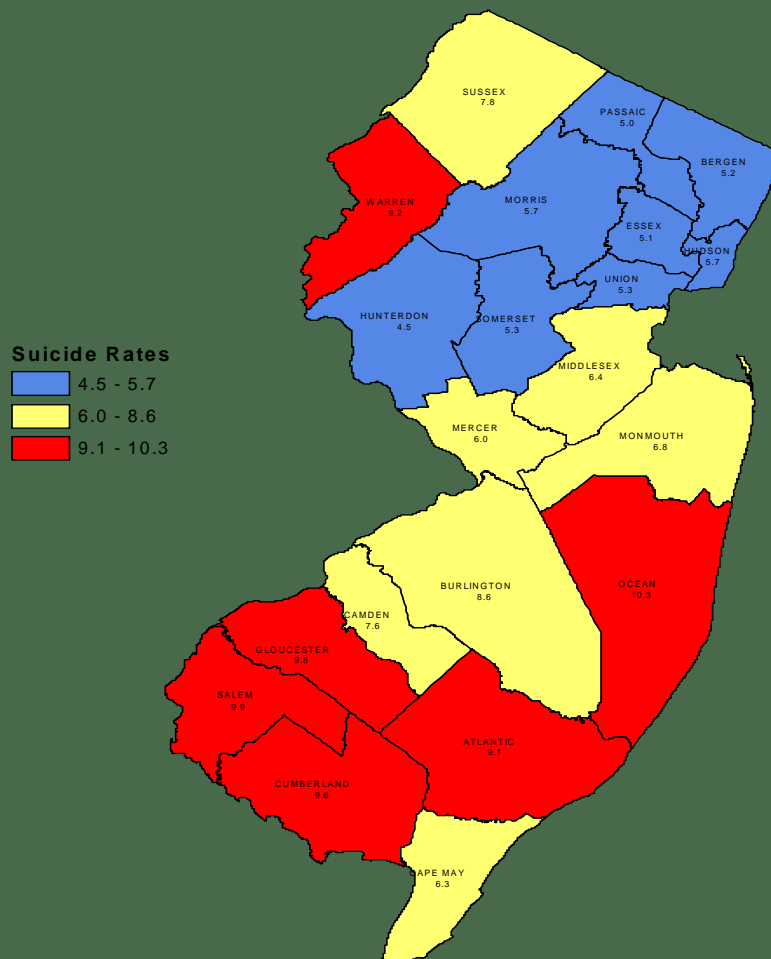
# Suicide



- Rates are highest among white males
- Rates are highest at older middle ages (@ 45-64 years)
- Suffocation is leading mechanism, followed by firearms and poisoning
- There are about 10-12 non-fatal suicide attempts resulting in hospitalization for every completed suicide



Figure 8. Age-adjusted Suicide Rates  
by County, New Jersey, 1999-2000





**Figure 11. Age adjusted county suicide rates and percent owning firearms, New Jersey, 1999-2000**

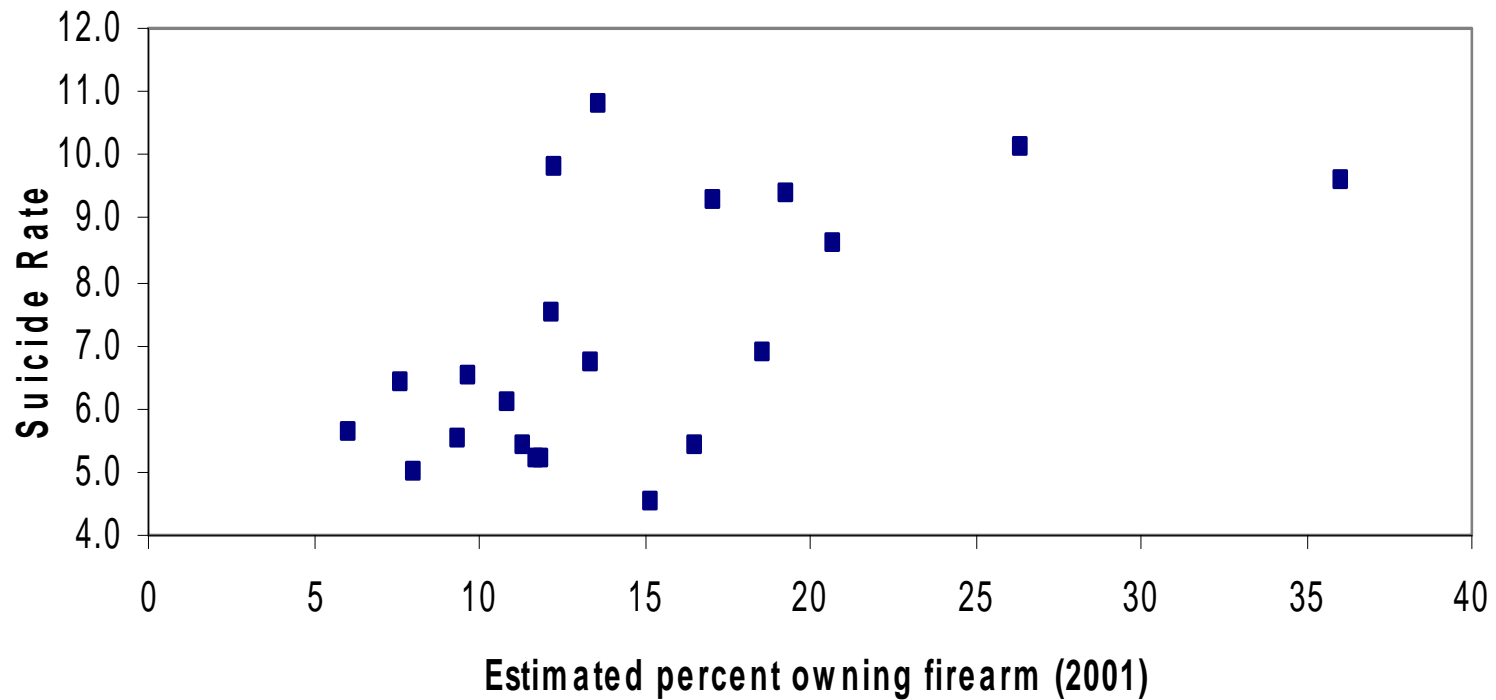
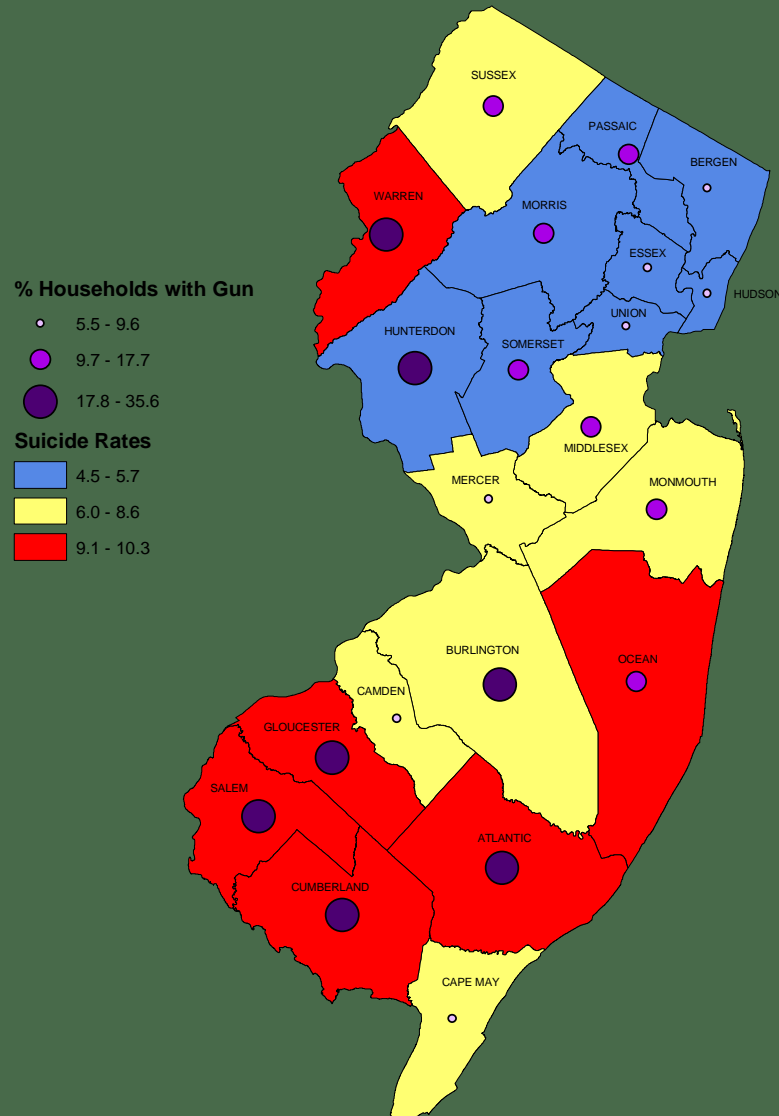


Figure 12. Age-adjusted Suicide Rates and Percentage of Households with a Gun by County, New Jersey, 1999-2000



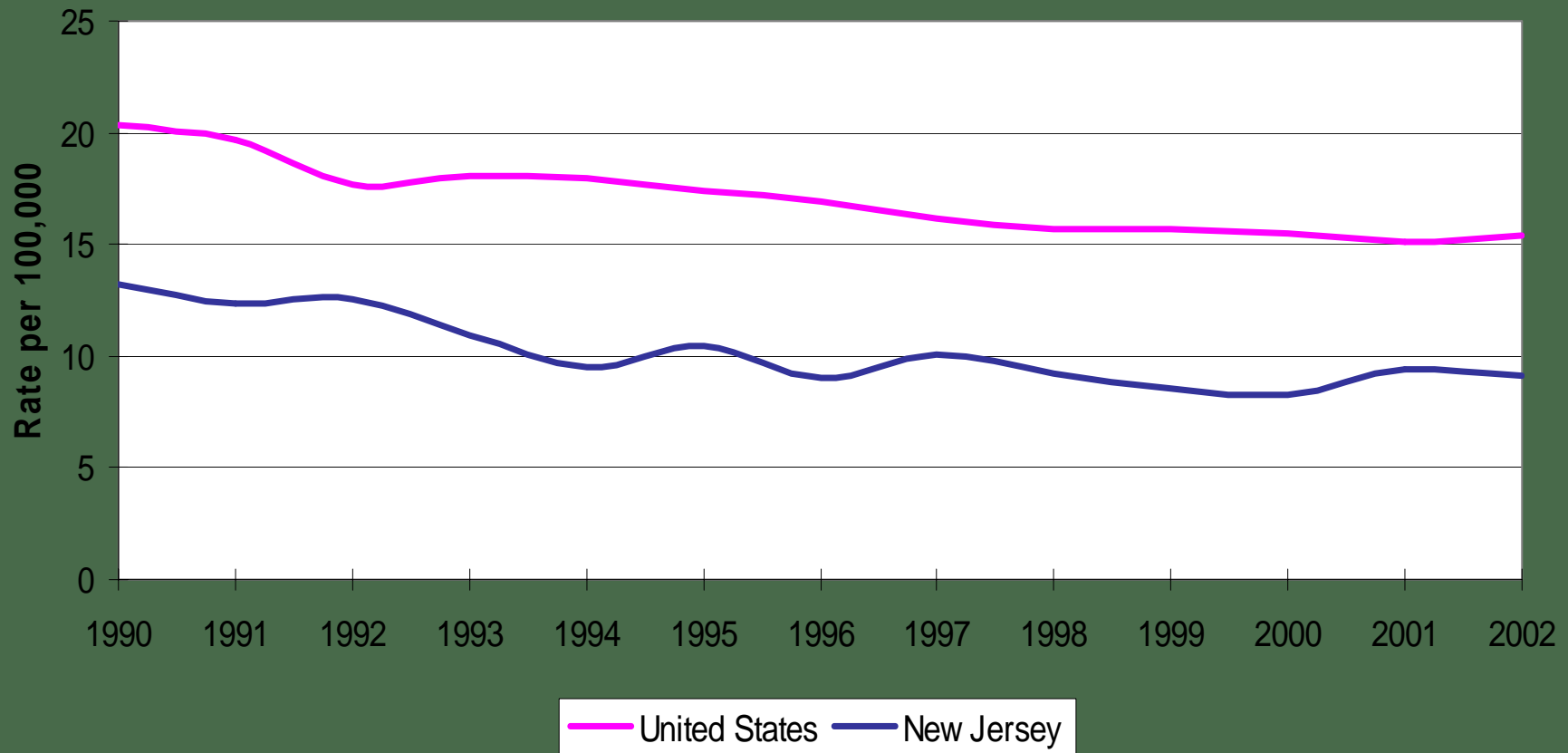


# Pediatric Injury

- Injuries are the leading cause of death for the population aged 1-21 years
- Pediatric injury has declined more than has adult injury mortality
- Remains major area of concern – YPLL greatest



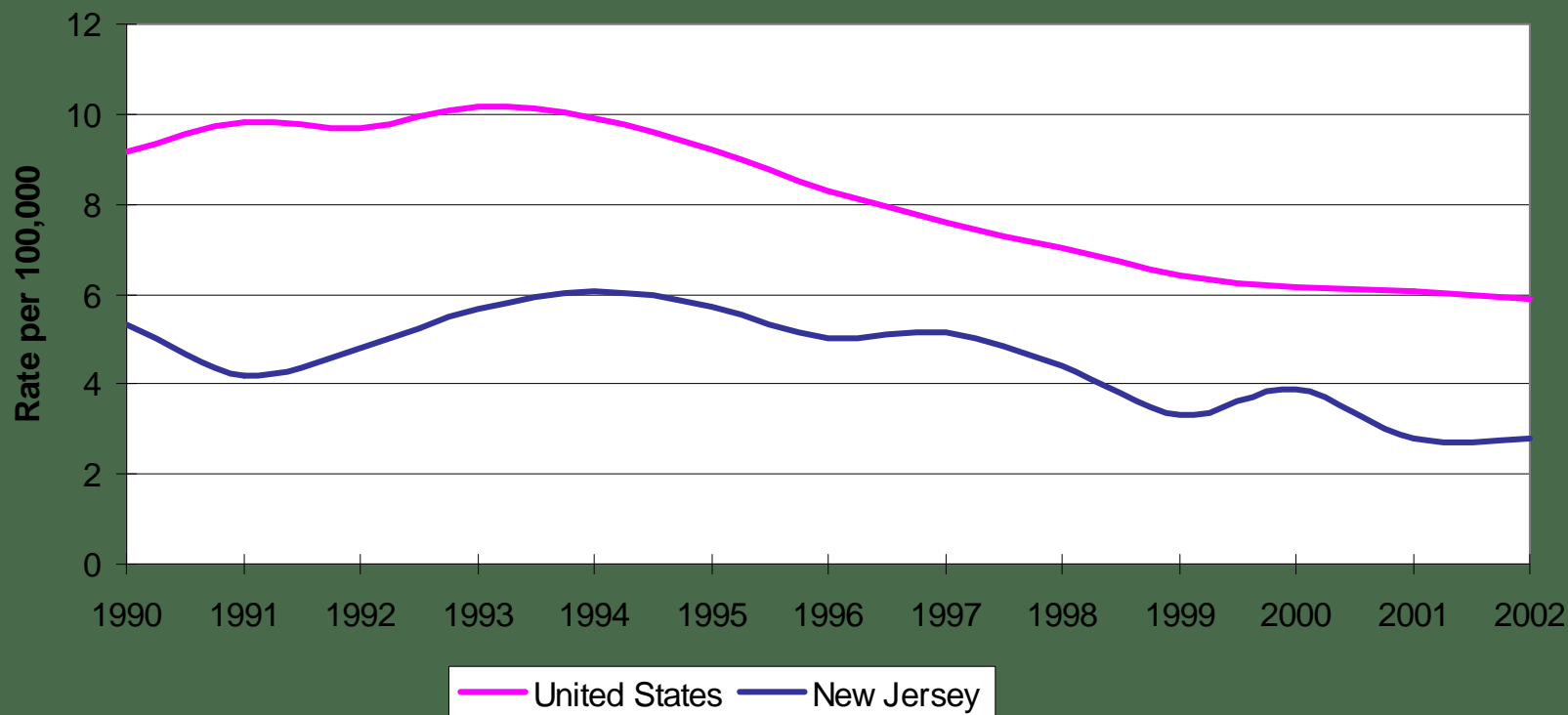
# Age-adjusted unintentional injury mortality rates, ages 0-19, United States and New Jersey, 1990-2002



1990-2002 data from CDC WISQARS



## Age-adjusted intentional injury mortality rates, ages 0-19 years, United States and New Jersey, 1990-2002

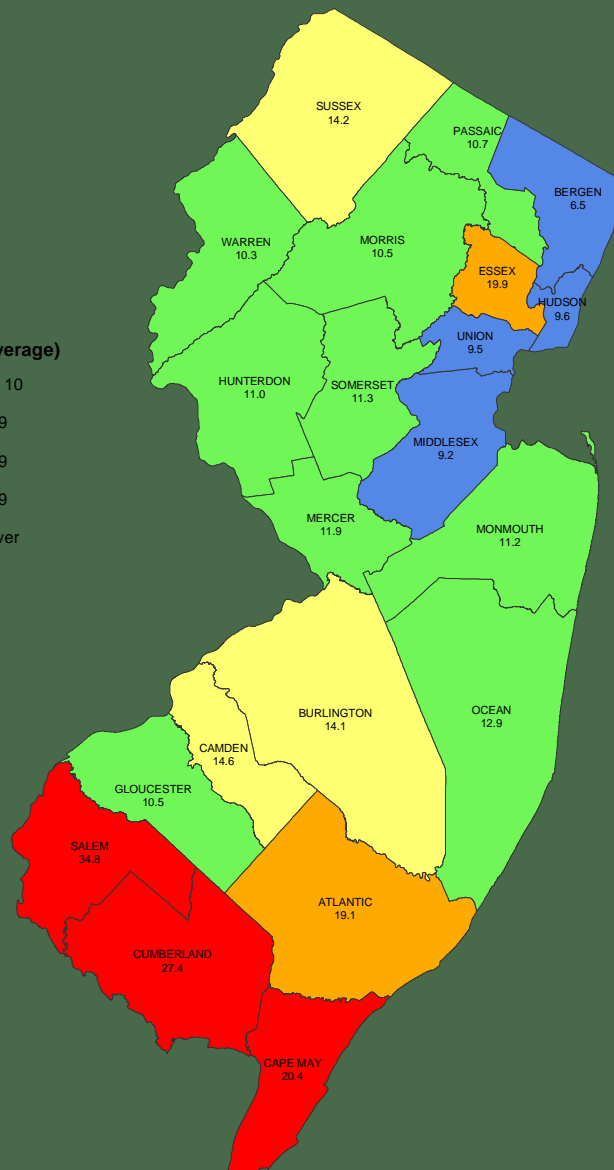
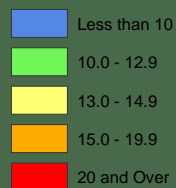


1990-2002 data from CDC WISQARS

# Age-adjusted injury death rates by county, 0-19 years, New Jersey, 1999-2001



## Rates (3-year average)



# Conclusions



- Injury is a major source of mortality, especially for pediatric and adolescent population
- New Jersey has lower than average injury rates
- But the gap between New Jersey and the rest of the nation has narrowed over the past decade



# Priorities for injury prevention

- High mortality rate or hospitalization rate
- High long-term disability rate, especially mechanisms likely to result in head and spinal cord injuries
- Existence of effective countermeasure

**Common, severe, and readily preventable**

# Priorities for prevention



- Motor vehicle
- Poisoning
- Firearms



# Motor Vehicle

- Overall, New Jersey has relatively low rates
- Rates highest for young and older adults
- Technological change, regulations, education
- NJ has toughened licensure, DUI, and seatbelt regulations in recent years

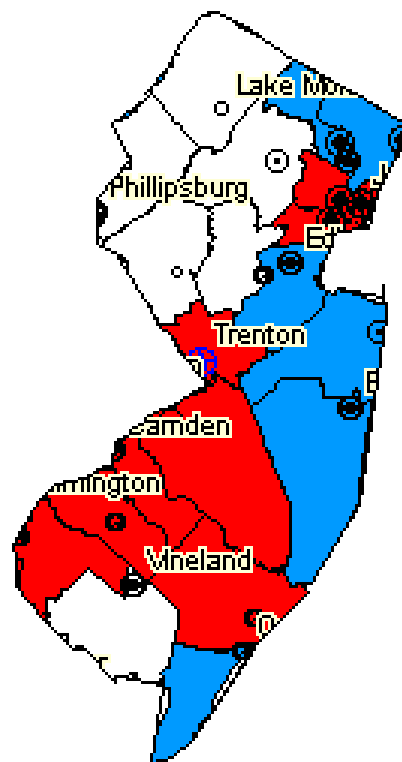


# Pedestrian injury

- New Jersey has above-average pedestrian fatality rates
- Especially among elderly
- NJDOT activities include modifying environment – changing signals, pedestrian traffic patterns...



# Unintentional poisoning rates in NJ, compared to national average, 2003





# Unintentional poisoning

- National problem, worse than average in New Jersey
- Almost 600 deaths in 2003, versus @760 from motor vehicle
- Most poisoning fatalities are white, male, between 25-45



# Poisoning

- Supply of high-purity street drugs – heroin and cocaine
- Also new problem – prescription drugs
- Oxycontin - @ 100 deaths in 2003
- Diversion, prescription drug rings, “pain management” centers....

# Poisoning



- Greater access to substance abuse treatment needed
- New treatment for opiate addiction available
- Greater regulation of controlled substance prescription
- Biggest contributor is illicit drugs



# Firearms

- Approximately 60% of homicides, 30% of suicides, committed with firearms – over 400 deaths
- Illegal guns major problem in homicides
- Legal guns used in most suicides
- New Jersey has relatively strict gun control laws – gun owners at risk for suicide
- Major problem with illegal guns

# Injury Surveillance activities



# Injury Surveillance Activities at the Office of Injury Surveillance and Prevention



- Founded within CHS in early 2005
- Source for injury surveillance data
- Staff available to provide information and technical support to prevention programs
- <http://www.state.nj.us/health/chs/oisp/index.shtml>

# Current Activities



- CNS Surveillance
- Trauma registry
- New Jersey Violent Death Reporting System
- Overall injury surveillance
- Development of state plan





# CNS Injury Surveillance

- CHS is funded by CDC to conduct CNS surveillance
- TBI and SCI
- Based on hospital and death data
- Abstract sample of cases to validate diagnosis, collect additional data

# CNS Injury Registry



- In cooperation with NJSCRC, CHS has implemented CNS registry
- Effective January 2004
- Hospitals required to report injury severity and treatment information for all TBI and SCI
- Will greatly enhance CNS surveillance



# Trauma Registry

- Plans to expand CNS registry to statewide trauma registry
- Trauma software purchased for all acute care hospitals
- Has been distributed to trauma centers
- Registry manager on staff of CHS
- Goal is have complete reporting on all trauma, provide data to hospitals and others

# New Jersey Violent Death Reporting System



- New Jersey one of six original states to be funded by CDC
- Includes all homicides, suicides, legal intervention, and accidental deaths of undetermined intent, and unintentional firearms
- Modelled on FARS system

# NJVDRS Data Sources



- **Death Certificates**
- **Medical Examiner Reports**
- **Law Enforcement Reports**
- **Supplemental Homicide Reports**
- **Domestic Violence Reports**
- **Ballistics**
- **Crime Lab Reports**

# Strategic Plan for Injury Prevention



- New Jersey Injury Advisory Council
- Has begun strategic planning process
- Goal is to create state injury prevention plan